AMENDMENTS TO THE SPECIFICATION:

Please amend the paragraph beginning at page 1, line 5, as follows:

The ~~present invention~~ technology of this disclosure relates in general to wireless communication and in particular to wireless communication transmitter systems.

8-29-08 ***Please amend the paragraphs beginning at page 2, line 22, through page ~~3~~ 13, line 6 as follows:***

An object of ~~the present invention~~ one or more non-limiting embodiments is to provide for using one and the same transmitter system for constant-envelope as well as non-constant envelope modulation schemes. Another object is to provide a transmitter system for non-constant envelope modulation schemes based on non-linear power amplifier elements. A further object ~~of the present invention~~ is to provide the possibility for fast switching between different modulation schemes.

The above objects are achieved by ~~methods and devices according to the enclosed claims~~ one or more non-limiting example embodiments. In general~~-words~~, a double TRU (Transceiver Unit) is used. The output signals from the power amplifiers are combined to one common output signal provided to an antenna arrangement. A DSP (Digital Signal Processor) of each TRU comprises means for a constant-envelope modulation scheme and a non-constant envelope scheme. The DSP:s select the modulation scheme according to modulation information provided together with the input digital signal. In such a way, a switching between different modulation schemes can be performed even on a time-slot basis.

In case of a non-constant-envelope modulation, the DSP divides the modulated signal into two component signals. Each TRU takes care of the amplification of one component, and the components are eventually combined before being provided to the antenna arrangement. A phase LO compensation of at least one of the TRU:s is performed in order to correct for different paths or phase positions of the power

amplifiers. The non-constant envelope modulated signal can also be a multi-carrier signal, e.g. of two or more constant-envelope signals.

KW 8-29-08 ***Please amend the paragraphs beginning at page 3, line ~~9~~ 19, as follows:***

The arrangement can also be operated according to TCC (Transmitter Coherent Combining) of constant-envelope modulated signals, where both TRU:s are provided with the same digital signal. The two amplified output signals are combined to create an output signal of double the amplitude. Also here, phase compensation is ~~necessary~~ <u>desirable</u>.

The phase compensation is preferably determined by monitoring the output power or monitoring the power in the load of the hybrid and comparing with expected output power. In one <u>non-limiting example</u> embodiment, a calibration of the phase compensation is performed during TCC bursts, and utilized during non-constant envelope modulation. Other <u>non-limiting example</u> embodiments utilize constant amplitude portions of non-constant envelope time slots for performing phase compensation calibration. One may then make use also of power measurements of the output signals from each power amplifier. The phase compensation calibration can also be performed during well-characterized training sequences within the time slots.

Please amend the paragraphs beginning at page 4, line 17, as follows:

FIG. 6 is a block diagram illustrating ~~an~~ a <u>non-limiting example</u> embodiment of a double transmitter unit according to the present invention;

FIG. 7 is a flow diagram illustrating ~~an embodiment of~~ a <u>non-limiting example</u> method for providing two constant envelope modulated signals according to the present invention;

FIG. 8 is a flow diagram illustrating ~~an embodiment of~~ a <u>non-limiting example</u> method for providing a non-constant envelope modulated signal according to the present invention;

Please amend the paragraphs beginning at page 8, line 7, as follows:

~~An~~ A non-limiting example embodiment of a double transmitter unit arrangement 45 ~~according to the present invention~~ is illustrated in FIG. 6. A first modulation unit 50 has an input 51 for receiving a digital signal to be transmitted. The input 51 is connected to a DSP (digital signal processor) 52. The DSP 52 comprises modulation means; a 8PSK modulator 53 and a GMSK modulator 54. The DSP 52 also comprises a control input 49 for receiving modulation information, and a selector 55. The selector 55 selects one of the modulators 53, 54 according to the modulation information received by the control input 49. The digital signal received by the input 51 is thereby provided to one of the modulators 53, 54. The different means in the DSP 52 ~~are~~ can be implemented as software.

The GMSK modulator 54 modulates the input digital signal according to the GMSK scheme. The modulated signal is in this embodiment provided in a real I and an imaginary part Q at two outputs, connected to an analogue signal generator 56. In this embodiment, the analogue signal generator 56 comprises ~~essentially~~ a quadrature modulator 57. The analogue signal generator 56 also comprises ~~in turn~~ two DAC's (Digital-to-Analogue Converters) 58, 59 converting the I and Q signals, respectively, into analogue voltages. The analogue voltages are modulated in a mixer 60 with the carrier frequency, provided by a frequency generator 61, and combined. A phase shifter 62 shifts the frequency signal to the Q component by 90 degrees. The output from the analogue signal generator 56 is thus an analogue voltage signal being modulated, in this case according to the GMSK scheme.

wl 8-29.08 ***Please amend the paragraphs beginning at page 12, line 10, through page 14, line ~~14~~ 17 as follows:***

In FIG. 7-9, the above operations are illustrated as flow diagrams. First, in FIG. 7, ~~an embodiment of~~ a non-limiting example method of providing two GMSK signals on one carrier each ~~according to the present invention~~ is illustrated. The procedure starts in